

CLAIMS

1. A method of producing a heating element that is comprised essentially of molybdenum silicide type and alloys of this
5 basic material, c h a r a c t e r i s e d by producing a material that contains substantially $\text{Mo}(\text{Si}_{1-x}\text{Al}_x)_2$ and Al_2O_3 by mixing a molybdenum aluminium silicide $\text{Mo}(\text{Si}_{1-y}\text{Al}_y)_2$ with bentonite clay in a manner known per se, wherein the bentonite clay is caused to contain impure substances with which molyb-
10 denum silicide cannot be alloyed and with which the symmetry of the crystal lattice of the molybdenum silicide is retained with a combined content of less than 2000 ppm.
2. A method according to Claim 1, c h a r a c t e r i s e d
15 in that the combined content of the impurities Mg, Ca, Fe, Na and K is caused to be less than 2000ppm.
3. A method according to Claim 1 or 2, c h a r a c t e r -
i s e d in that the content of said impurities is caused to
20 be less than 1000ppm.
4. A method according to Claim 1,2 or 3, c h a r a c t e r -
i s e d in that x is caused to lie in the range of 0.4 - 0.6.
- 25 5. A method according to Claim 1, 2 or 3, c h a r a c t -
e r I s e d in that x is caused to lie in the range of 0.45
- 0.55.
6. A method according to Claim 1, 2, 3 or 4, c h a r a c t -
30 e r i s e d by substituting molybdenum partly with Re or W in the material $\text{Mo}(\text{Si}_{1-x}\text{Al}_x)_2$.

7. A electrical heating element that is comprised substantially of the molybdenum silicide type and alloys of this basic material, characterized in that said element is comprised chiefly of the materials $\text{Mo}(\text{Si}_{1-x}\text{Al}_x)_2$ and Al_2O_3 ,
5 in that the material contains impure substances with which the molybdenum silicide can not be alloyed and with which the symmetry of the crystal lattice of the molybdenum silicide is maintained with a combined content of less than 2000ppm.
- 10 8. A heating element according to Claim 7, characterized in that the combined content of the impurities Mg, Ca, Fe, Na and K is caused to be less than 2000ppm.
9. A heating element according to Claim 7 or 8, characterized
15 in that the impurity content of said material is less than 1000ppm.
10. A heating element according to Claim 7, 8 or 9, characterized in that x lies in the range of 0.4 - 0.6.
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11. A heating element according to Claim 7, 8 or 9, characterized in that x is caused to lie in the range of 0.45 - 0.55.
- 25 12. A heating element according to Claim 7, 8, 9, 10 or 11, characterized in that molybdenum in the material $\text{Mo}(\text{Si}_{1-x}\text{Al}_x)_2$ is replaced partially with Re or W.